# COMMERCIAL
# REFRIGERATOR & FREEZER

# SERVICE MANUAL
# (CFD Units)

**MODEL: CFD-1RR**

**CFD-2RR**

**CFD-3RR**

**CFD-1FF**

**CFD-2FF**

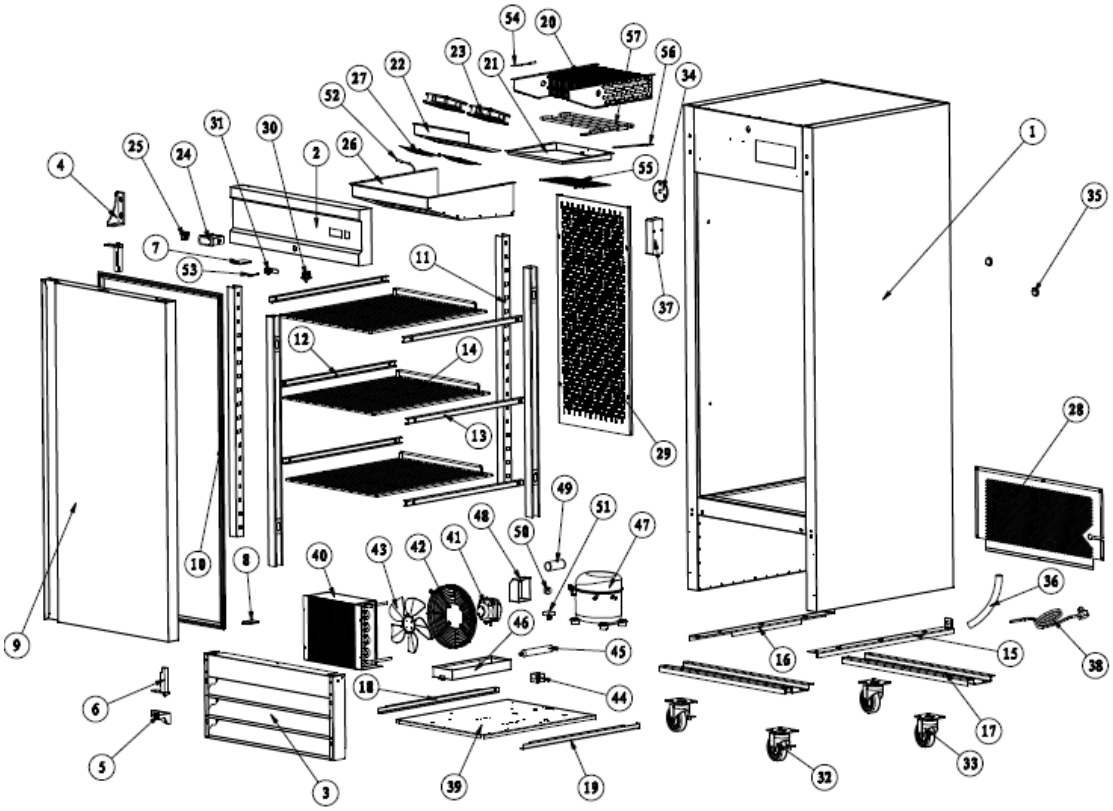
**CFD-3FF**

# TABLE OF CONTENTS


**1. EXPLODED VIEW AND PARTS LIST** **2**
1.1 CFD1 series 2-3
1.2 CFD2 series 3-4
1.3 CFD3 series 5-6
**2.WIRING DIAGRAM** **7**
2.1 One door refrigerator: CFD1RR 7
2.2 One door freezer: CFD1FF 7
2.3 Two door refrigerator: CFD2RR 8
2.4 Two door freezer: CFD2FF 8
2.5 Three door refrigerator: CFD3RR 9
2.6 Three door freezer: CFD3FF 9
**3.PART DETAIL** **10**
3.1 Control panel 10
3.2 Door 10
3.3 Shelf &Track & Bracket 10
3.4 Hinge 11
3.5 Refrigeration system 12
3.6 Cooling system 13
**4. SUMMARY OF MAIN PARTS** **14-16**
**5. CONTROLLER INSTRUCTION** **17**
5.1 Refrigerator controller 17-18
5.2 Freezer controller 19-22
**6. REPLACEMENT OF THE MAIN PARTS** **23**
6.1 Control panel component 23-24
6.2 Door and hinge 25-28
6.3 Cooling system 29-32
6.4 Refrigeration system 33
6.5 Others 34-37
**7. CLEANING AND MAINTENANCE** **38**
7.1 Cleaning 38-39
7.2 Maintenance 39

# 1. EXPLODED VIEW AND PARTS LIST

## 1.1 CFD1 series



| | | | |
|---|---|---|---|
| 1 | CABINET: N/A | 30 | DOOR SWITCH: 17817409 |
| 2 | CONTROL PANEL ★★ | 31 | LOCK: 17813009 |
| 3 | FRONT GRILL | 32 | 4" CASTOR WITH BRAKE: 17816412 |
| 4 | UPPER RIGHT HINGE: 178HINGCFDTR | 33 | 4" CASTOR: 17819301 |
| 5 | BOTTOM RIGHT HINGE:178HINGCFDBR | 34 | DRAIN PLUG ★★ |
| 6 | SPRING HINGE: 178CARTRIDGE | 35 | FOAMING HOLE COVER: N/A |
| 7 | TOP COVER FOR REVERSIBLE DOOR | 36 | DRAIN HOSE |
| 8 | BOTTOM COVER FOR REVERSIBLE DOOR | 37 | LIGHT COMPONENTS: 17819014 |
| 9 | DOOR: 17815080 | 38 | POWER CORD: 17810175 |
| 10 | GASKET: 178GSKT11571 | 39 | COMPRESSOR UNIT INSTALLATION BOARD: N/A |
| 11 | BRACKETS: 17818644 | 40 | CONDENSER: 17815157 or (17818779 ★) |
| 12 | LEFT SHELF TRACK: 178SHELFRAIL | 41 | CONDENSER FAN MOTOR: 17814905 |
| 13 | RIGHT SHELF TRACK: 178SHELFRAIL | 42 | CONDENSER FAN COVER: 1785467 |
| 14 | SHELF: 178SHELFCFD | 43 | CONDENSER FAN MOTOR BLADE: 17811089 |
| 15 | RIGHT CONNECTING BOARD FOR CASTER ★★ | 44 | FILTER FIXER: N/A |
| 16 | LEFT CONNECTING BOARD FOR CASTER ★★ | 45 | FILTER: 970C032CAPT |
| 17 | LEG SUPPORTER ★★ | 46 | OUTER DRAIN PAN: 17816356 |

| | | | |
|---|---|---|---|
| 18 | LEFT TRACK FOR ASSEMBLING PANEL | 47 | COMPRESSOR: Ref – 17817554, Old F – 17811567, New F – 17811460 |
| 19 | RIGHT TRACK FOR ASSEMBLING PANEL | 48 | SPLICE BOX ★★ |
| 20 | EVAPORATOR: 17811872 | 49 | START CAPACITOR ★★ |
| 21 | INNER DRAIN PAN: 17815065 | 50 | OVERLOAD PROTECTOR ★★ |
| 22 | FAN MOTOR INSTALLATION PANEL ★★ | 51 | STARTER ★★ |
| 23 | EVAPORATOR FAN MOTOR: 17813407 | 52 | TEMPERATURE SENSOR OF CABINET INSIDE: 17813890 SF ONLY |
| 24 | THERMOSTAT (See Below) | 53 | KEY: 17811836 |
| 25 | POWER SWITCH: Old Green – 17810364 New Red-- 17810365 | 54 | EVAPORATOR TEMPERATURE SENSOR ★:17813890 SF ONLY |
| 26 | EVAPORATOR COVER: 17818696 | 55 | DRAIN PAN HEATER ★:17815641 |
| 27 | EVAPORATOR FAN MOTOR COVER: 17815699 | 56 | DRAIN HOSE HEATER ★: 17813722 |
| 28 | BACK GRILL ★★ | 57 | DEFROST HEATER ★:17813517 |
| 29 | COMPONENTS FOR BACK SHELF ★★ | | |

**★ Freezer only ★★ Consult Factory**

**Thermostat:**

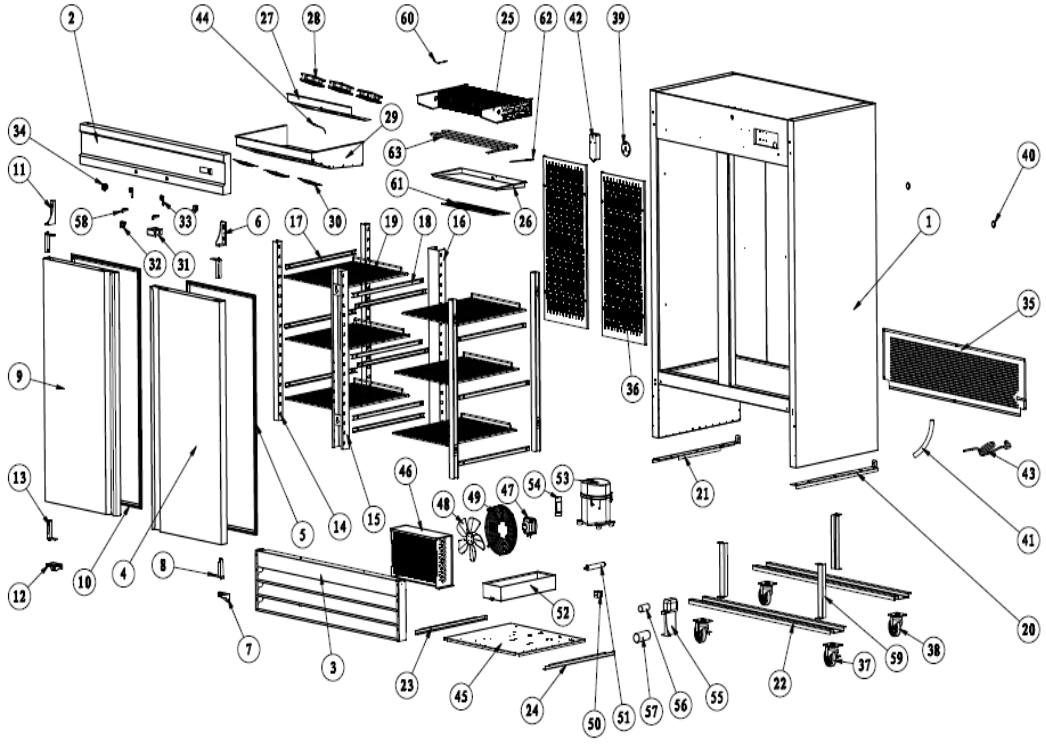
17815350 – Refrigerator

17816023 – with Relays SF102

17818869 – SF104 Freezer ★★

17819471 – Freezer ★★

## 1.2 CFD2RR/CFD2FF



| | | | |
|---|---|---|---|
| 1 | CABINET: N/A | 33 | LOCK: 17813009 |
| 2 | CONTROL PANEL | 34 | DOOR SWITCH: 17817409 |
| 3 | FRONT GRILL ★★ | 35 | BACK GRILL |
| 4 | RIGHT DOOR: 17818904 | 36 | COMPONENTS FOR BACK SHELF |
| 5 | GASKET: 178GSKT10521 | 37 | 4" CASTOR WITH BRAKE: 17816412 |
| 6 | UPPER RIGHT HINGE: 178HINGCFDTR | 38 | 4" CASTOR: 17819301 |
| 7 | BOTTOM RIGHT HINGE: 178HINGCFDBR | 39 | DRAIN PLUG: 17813588 |
| 8 | SPRING HINGE: 178CARTRIDGE | 40 | FOAMING HOLE COVER: N/A |
| 9 | LEFT DOOR: 17818904 | 41 | DRAIN HOSE |
| 10 | GASKET: 178GSKT10521 | 42 | LIGHT COMPONENTS: 17819014 (Cover For Lights) |
| 11 | UPPER LEFT HINGE: 178HINGCFDTL | 43 | POWER CORD: 17810175 |
| 12 | LEFT BOTTOM HINGE: 178HINGCFDBL | 44 | TEMPERATURE SENSOR OF CABINET INSIDE: 17813890 – SF ONLY |
| 13 | SPRING HINGE: 178CARTRIDGE | 45 | COMPRESSOR UNIT INSTALLATION BOARD: N/A |
| 14 | BRACKET | 46 | CONDENSER: 17811539 |
| 15 | MIDDLE BRACKET: 17815961 Support Rack | 47 | CONDENSER FAN MOTOR: R – 17810976<br>F -- 17815815 |
| 16 | BACK BRACKET | 48 | CONDENSER FAN MOTOR BLADE:<br>R – 17817114 F -- 17812660 |
| 17 | LEFT SHELF TRACK: 178SHELFRAIL | 49 | CONDENSER FAN COVER: 1785467 |
| 18 | RIGHT SHELF TRACK: 178SHELFRAIL | 50 | FILTER FIXER: N/A |
| 19 | SHELF: 178SHELFCFD | 51 | FILTER |
| 20 | RIGHT CONNECTING BOARD FOR CASTER ★★ | 52 | OUTER DRAIN PAN |
| 21 | LEFT CONNECTING BOARD FOR CASTER ★★ | 53 | COMPRESSOR (See Note Below) |
| 22 | LEG SUPPORTER ★★ | 54 | SPLICE BOX ★★ |
| 23 | LEFT TRACK FOR ASSEMBLING PANEL ★★ | 55 | STARTER ★★ |
| 24 | RIGHT TRACK FOR ASSEMBLING PANEL ★★ | 56 | OVERLOAD PROTECTOR ★★ |
| 25 | EVAPORATOR: 17816999 | 57 | START CAPACITOR ★★ |
| 26 | INNER DRAIN PAN: 17817891 | 58 | KEY: 17811836 |
| 27 | FAN MOTOR INSTALLATION PANEL ★★ | 59 | SUPPORT ROD |
| 28 | EVAPORATOR FAN MOTOR: 17813407 | 60 | EVAPORATOR TEMPERATURE SENSOR★ 17813890 (SF Only) |
| 29 | EVAPORATOR COVER: 17816883 | 61 | DRAIN PAN HEATER★ 17815642 |
| 30 | EVAPORATOR FAN MOTOR COVER: 17818696 | 62 | DRAIN HOSE HEATER★ 17813722 |
| 31 | THERMOSTAT (See Below) | 63 | DEFROST HEATER★ 17817764 |
| 32 | POWER SWITCH: Old Green – 17810364<br>New Red -- 17810365 | 64 | |

★Freezer only ★★ Consult Factory

**31. Thermostats:**

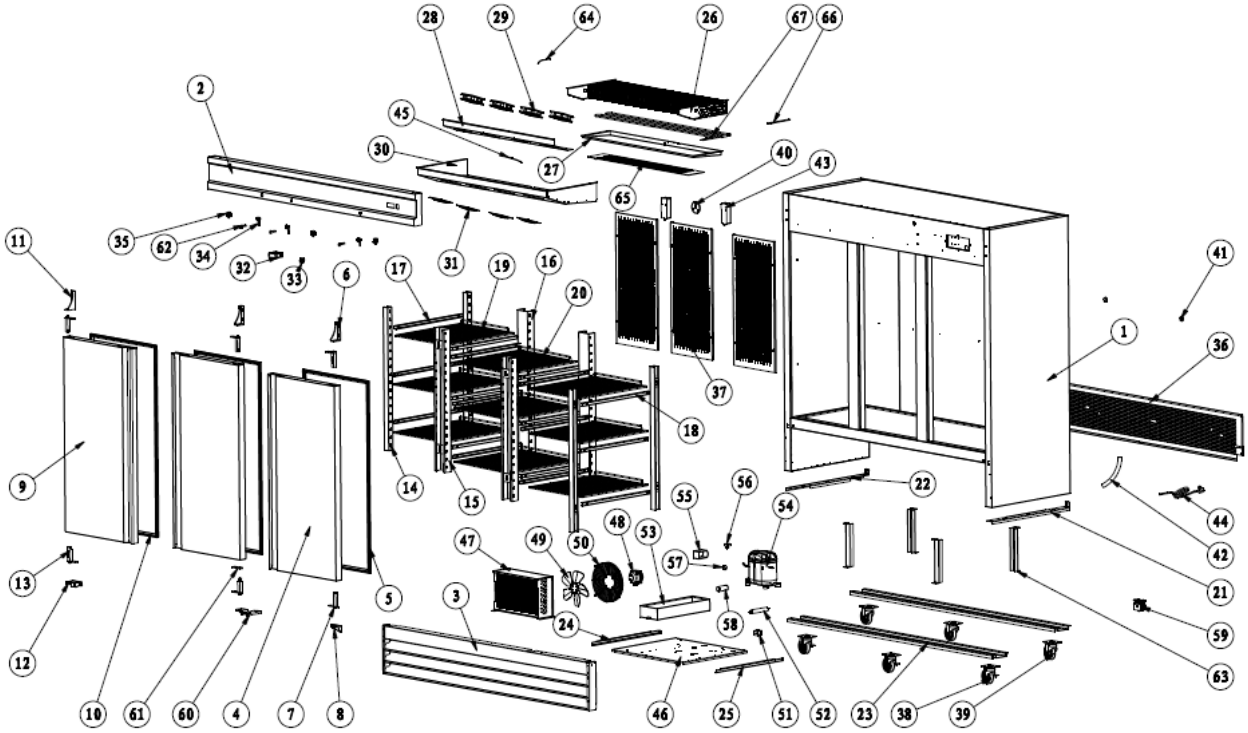
17816023 – SF102 w/ Relays Refrigerator 17818846 – SF104 Freezer ★

17815350 – Refrigerator

**53.** Freezer Compressor – Old: 17812874, New: 17818018

Refrigerator Compressor – Old: 17817533, New: 17818892

## 1.3 CFD3RR/ CFD3FF



| | | | |
|---|---|---|---|
| 1 | CABINET: N/A | 35 | DOOR SWITCH: 17817409 |
| 2 | CONTROL PANEL: 17817125 | 36 | BACK GRILL |
| 3 | FRONT GRILL | 37 | COMPONENTS FOR BACK SHELF ★★ |
| 4 | RIGHT DOOR: 17818904 | 38 | 4" CASTOR WITH BRAKE: 17816412 |
| 5 | GASKET: 178GSKT10521 | 39 | 4" CASTOR: 17819301 |
| 6 | UPPER RIGHT HINGE: 178HINGCFDTR | 40 | DRAIN PLUG: 17813588 |
| 7 | SPRING HINGE: 178CARTRIDGE | 41 | FOAMING HOLE COVER: N/A |
| 8 | BOTTOM RIGHT HINGE: 178HINGCFDBR | 42 | DRAIN HOSE |
| 9 | LEFT DOOR: 17818904 | 43 | LIGHT COMPONENTS: 17819014 (Cover For Lights) |
| 10 | GASKET: 178GSKT10521 | 44 | POWER CORD |
| 11 | UPPER LEFT HINGE: 178HINGCFDTL | 45 | TEMPERATURE SENSOR OF CABINET INSIDE: |

| | | | |
|---|---|---|---|
| | | | 17813890 -- SF Only |
| 12 | LEFT BOTTOM HINGE: 178HINGCFDBL | 46 | COMPRESSOR UNIT INSTALLATION BOARD: N/A |
| 13 | SPRING HINGE: 178 CARTRIDGE | 47 | CONDENSER: R-17811539, F-17817943 |
| 14 | BRACKETS | 48 | CONDENSER FAN MOTOR: R-17810976, F-17810727 |
| 15 | MIDDLE BRACKETS | 49 | BLADE OF CONDENSER FAN MOTOR: R-17817114, F-17812660 |
| 16 | BACK BRACKETS | 50 | CONDENSER FAN COVER: 17812098 |
| 17 | LEFT SHELF TRACK: 178SHELFRAIL | 51 | FILTER FIXER: N/A |
| 18 | RIGHT SHELF TRACK: 178SHELFRAIL | 52 | FILTER |
| 19 | SHELF: Left or Right – 178SHELFCFD | 53 | CONDENSATE DRAIN PAN: 17812622 |
| 20 | MIDDLE SHELF: 178SHELFCFD3 | 54 | COMPRESSOR: R-17815901, F-17818299 |
| 21 | RIGHT CONNECTING BOARD FOR CASTER ★★ | 55 | SPLICE BOX ★★ |
| 22 | LEFT CONNECTING BOARD FOR CASTER ★★ | 56 | STARTER ★★ |
| 23 | LEG SUPPORTER ★ | 57 | OVERLOAD PROTECTOR ★★ |
| 24 | LEFT TRACK FOR ASSEMBLING PANEL ★★ | 58 | START CAPACITOR ★★ |
| 25 | RIGHT TRACK FOR ASSEMBLING PANEL ★★ | 59 | AC CONTACTOR: 17819644 |
| 26 | EVAPORATOR: 17810051 | 60 | BOTTOM HINGE FOR MIDDLE DOOR: 178HINGCFDBM |
| 27 | INNER DRAIN PAN: 17811448 | 61 | MIDDLE DOOR BLOCK: N/A |
| 28 | FAN MOTOR INSTALLATION PANEL ★ | 62 | KEY: 17811836 |
| 29 | EVAPORATOR FAN MOTOR: 17813407 | 63 | SUPPORT ROD ★★ |
| 30 | EVAPORATOR COVER: 17818904 | 64 | EVAPORATOR TEMPERATURE SENSOR★ 17813890 – SF Only |
| 31 | EVAPORATOR FAN COVER: 17815699 | 65 | DRAIN PAN HEATER: 17815643 ★ |
| 32 | THERMOSTAT (See Below) | 66 | DRAIN HOSE HEATER: 17813722 ★ |
| 33 | POWER SWITCH: Green Old – 17810364 Red New - 17810365 | 67 | DEFROST HEATER: 17817359★ |
| 34 | LOCK: 13009 | 68 | |

★Freezer only ★★ Consult Factory

**32. Thermostats:**

17816023 – SF 102, Refrigerator Thermostat

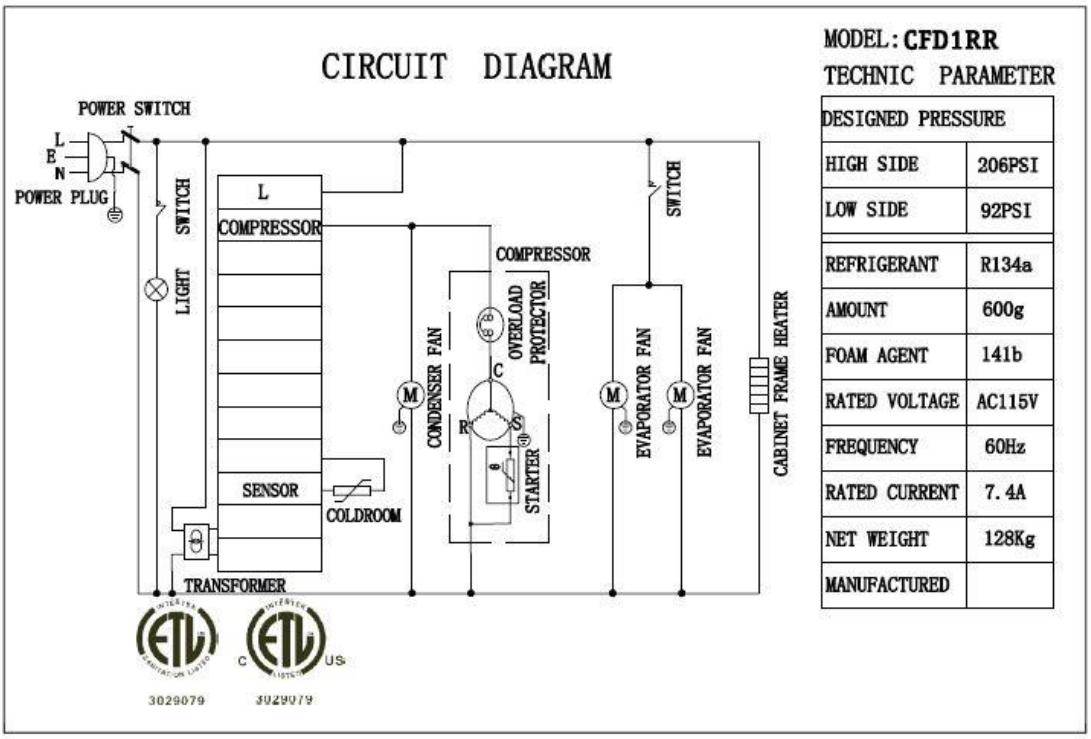
17818846 – SF104, Freezer Thermostat★

17815350 – Carenl Refrigerator Thermostat

17819471 – Carel Freezer Thermostat★

## 2. WIRING DIAGRAM

### 2.1 One door refrigerator: CFD1RR

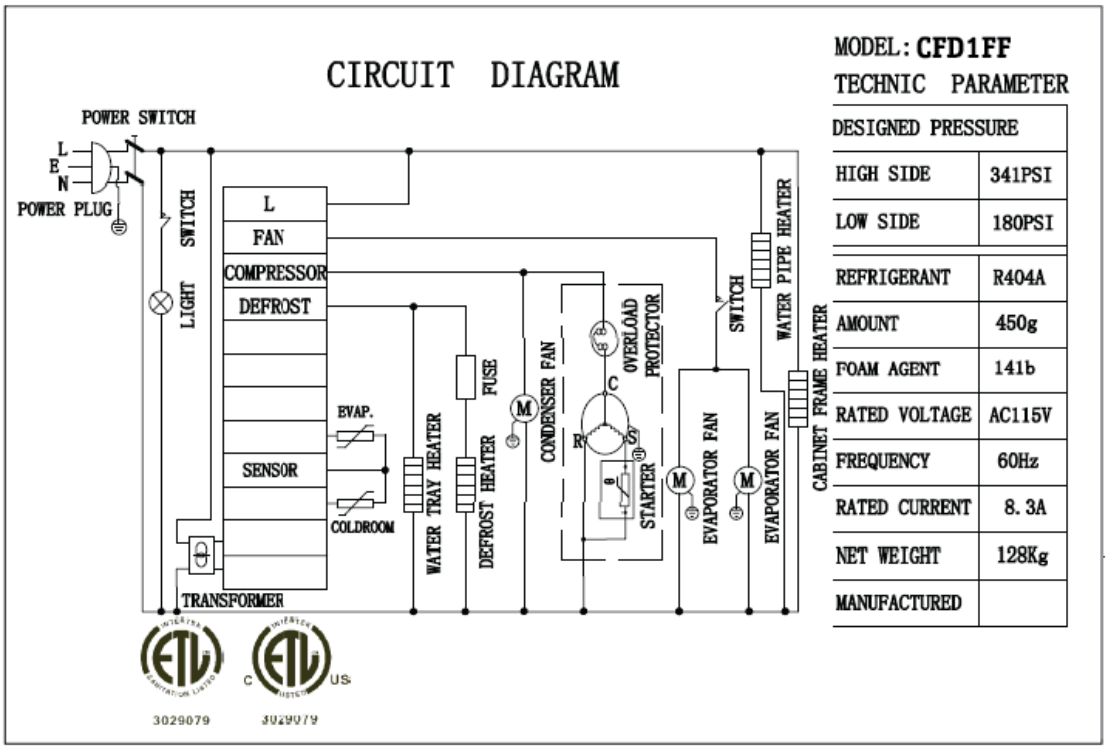



MODEL: **CFD1RR**

TECHNIC PARAMETER

| DESIGNED PRESSURE | |
|---|---|
| HIGH SIDE | 206PSI |
| LOW SIDE | 92PSI |
| REFRIGERANT | R134a |
| AMOUNT | 600g |
| FOAM AGENT | 141b |
| RATED VOLTAGE | AC115V |
| FREQUENCY | 60Hz |
| RATED CURRENT | 7.4A |
| NET WEIGHT | 128Kg |
| MANUFACTURED | |

### 2.2 One door freezer: CFD1FF

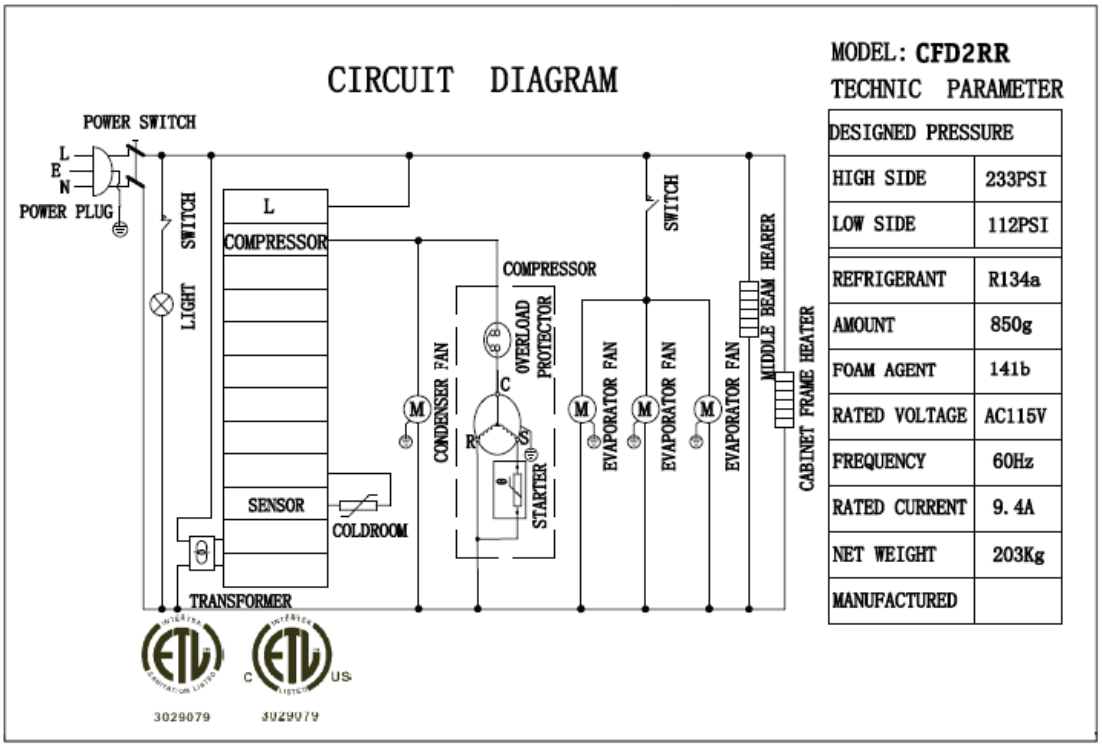



MODEL: **CFD1FF**

TECHNIC PARAMETER

| DESIGNED PRESSURE | |
|---|---|
| HIGH SIDE | 341PSI |
| LOW SIDE | 180PSI |
| REFRIGERANT | R404A |
| AMOUNT | 450g |
| FOAM AGENT | 141b |
| RATED VOLTAGE | AC115V |
| FREQUENCY | 60Hz |
| RATED CURRENT | 8.3A |
| NET WEIGHT | 128Kg |
| MANUFACTURED | |

## 2.3 Two door refrigerator: CFD2RR

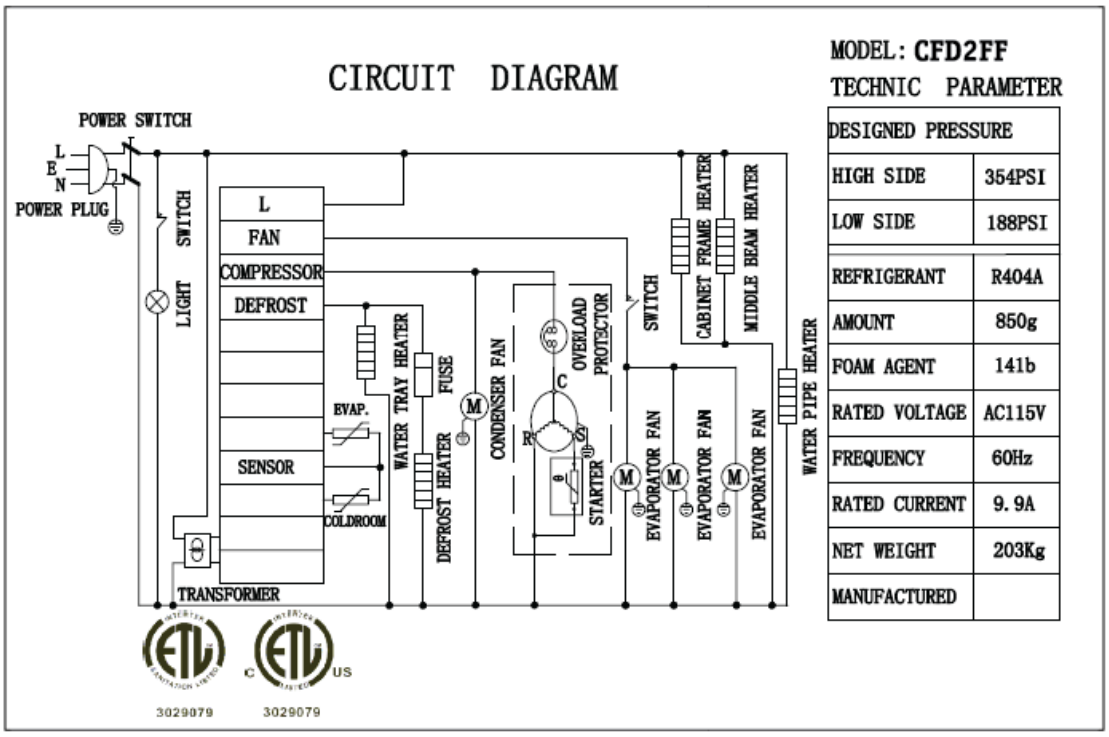



MODEL: **CFD2RR**

TECHNIC PARAMETER

| | |
|---|---|
| DESIGNED PRESSURE | |
| HIGH SIDE | 233PSI |
| LOW SIDE | 112PSI |
| REFRIGERANT | R134a |
| AMOUNT | 850g |
| FOAM AGENT | 141b |
| RATED VOLTAGE | AC115V |
| FREQUENCY | 60Hz |
| RATED CURRENT | 9.4A |
| NET WEIGHT | 203Kg |
| MANUFACTURED | |

## 2.4 Two door freezer: CFD2FF

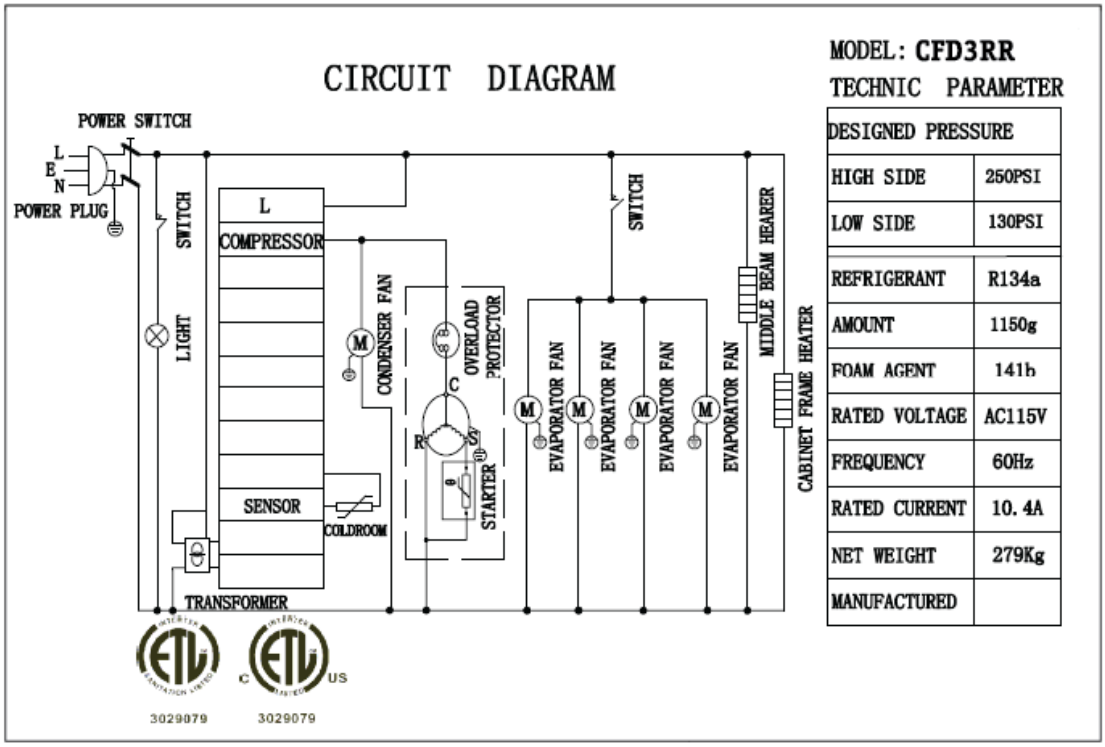



MODEL: **CFD2FF**

TECHNIC PARAMETER

| | |
|---|---|
| DESIGNED PRESSURE | |
| HIGH SIDE | 354PSI |
| LOW SIDE | 188PSI |
| REFRIGERANT | R404A |
| AMOUNT | 850g |
| FOAM AGENT | 141b |
| RATED VOLTAGE | AC115V |
| FREQUENCY | 60Hz |
| RATED CURRENT | 9.9A |
| NET WEIGHT | 203Kg |
| MANUFACTURED | |

## 2.5 Three door refrigerator: CFD3RR

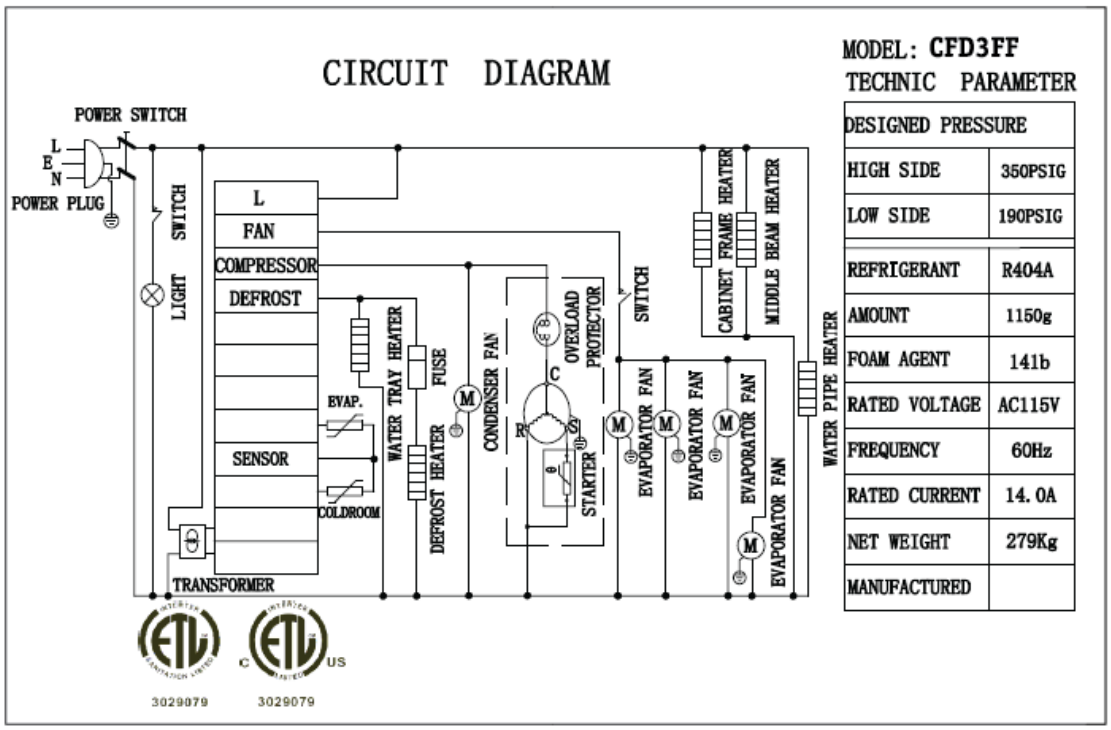



MODEL: **CFD3RR**

TECHNIC PARAMETER

| | |
|---|---|
| DESIGNED PRESSURE | |
| HIGH SIDE | 250PSI |
| LOW SIDE | 130PSI |
| REFRIGERANT | R134a |
| AMOUNT | 1150g |
| FOAM AGENT | 141b |
| RATED VOLTAGE | AC115V |
| FREQUENCY | 60Hz |
| RATED CURRENT | 10.4A |
| NET WEIGHT | 279Kg |
| MANUFACTURED | |

## 2.6 Three door freezer: CFD3FF



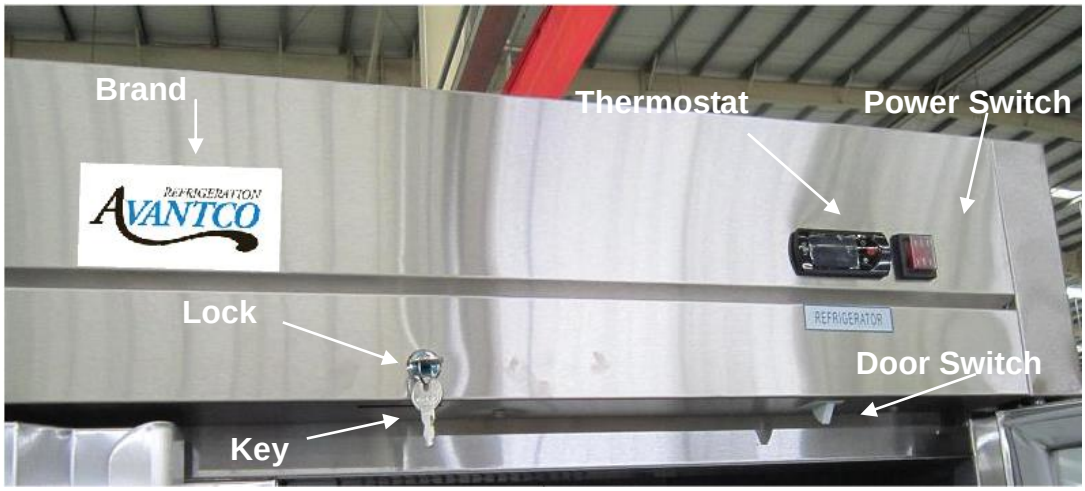

MODEL: **CFD3FF**

TECHNIC PARAMETER

| | |
|---|---|
| DESIGNED PRESSURE | |
| HIGH SIDE | 350PSIG |
| LOW SIDE | 190PSIG |
| REFRIGERANT | R404A |
| AMOUNT | 1150g |
| FOAM AGENT | 141b |
| RATED VOLTAGE | AC115V |
| FREQUENCY | 60Hz |
| RATED CURRENT | 14.0A |
| NET WEIGHT | 279Kg |
| MANUFACTURED | |

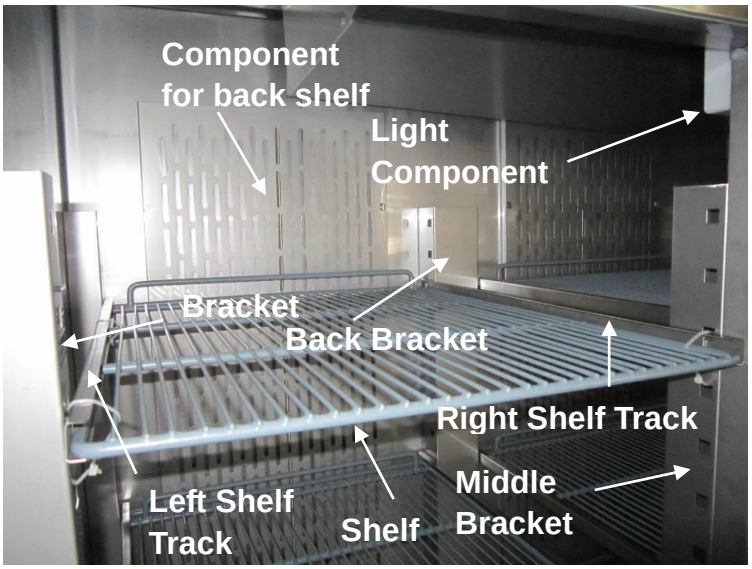
# 3. PART DETAIL

## 3.1 Control panel



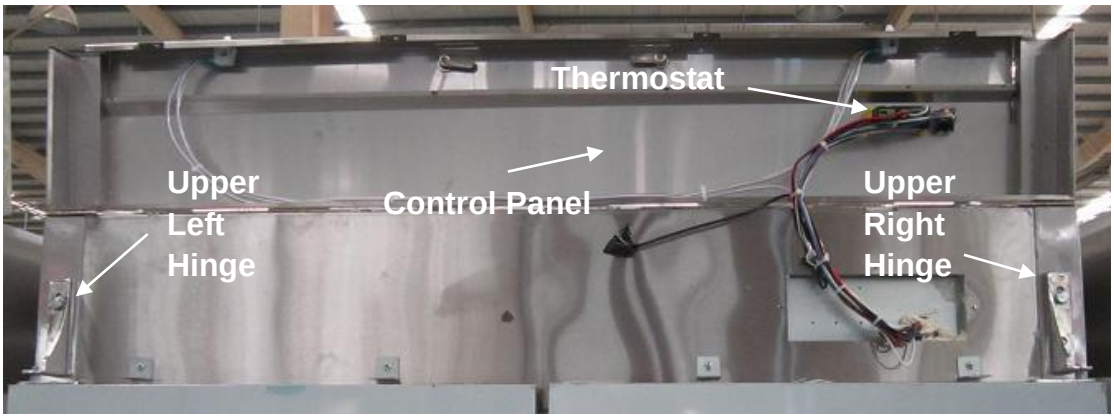

## 3.2 Door

## 3.3 Shelf &Track & Bracket

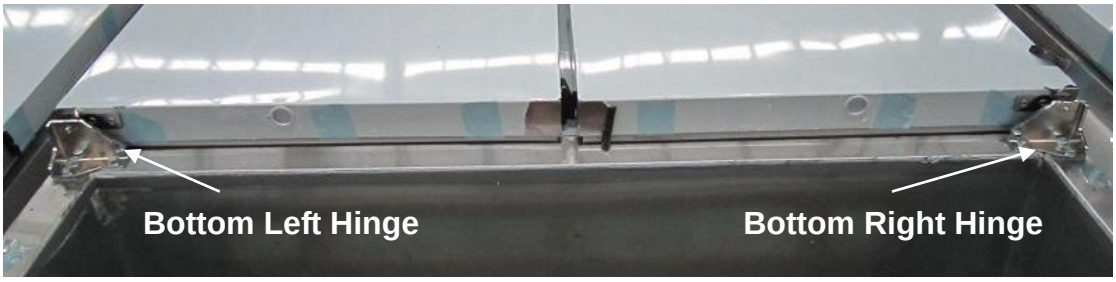


## 3.4 Hinge

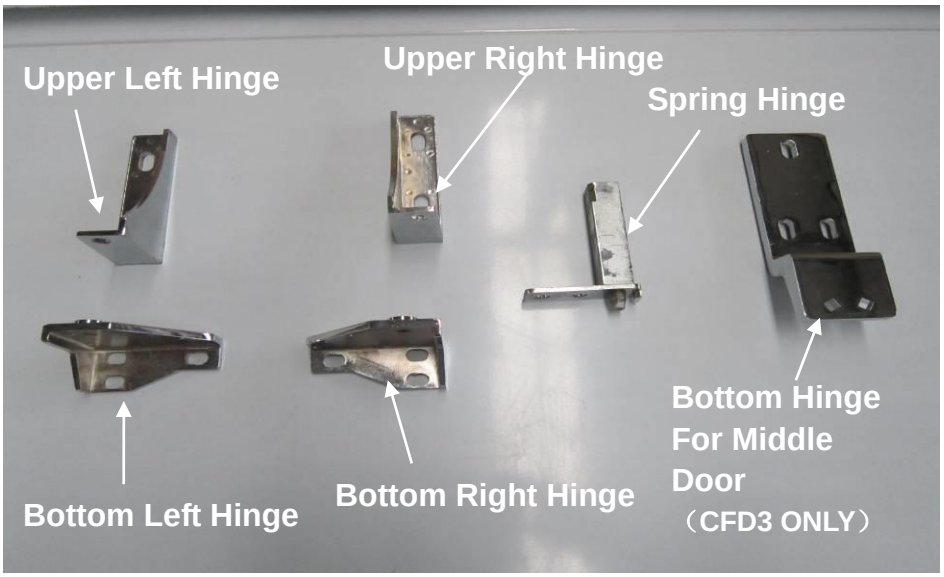
Upper Hinge




Bottom Hinge



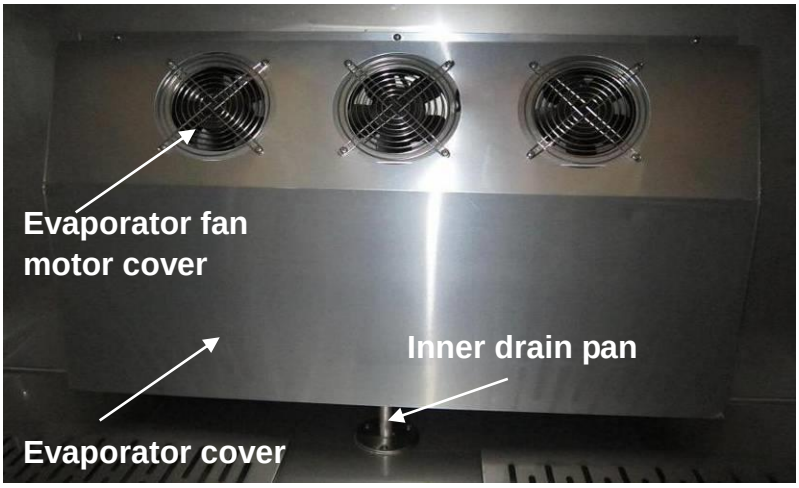

Comparison Of Hinge

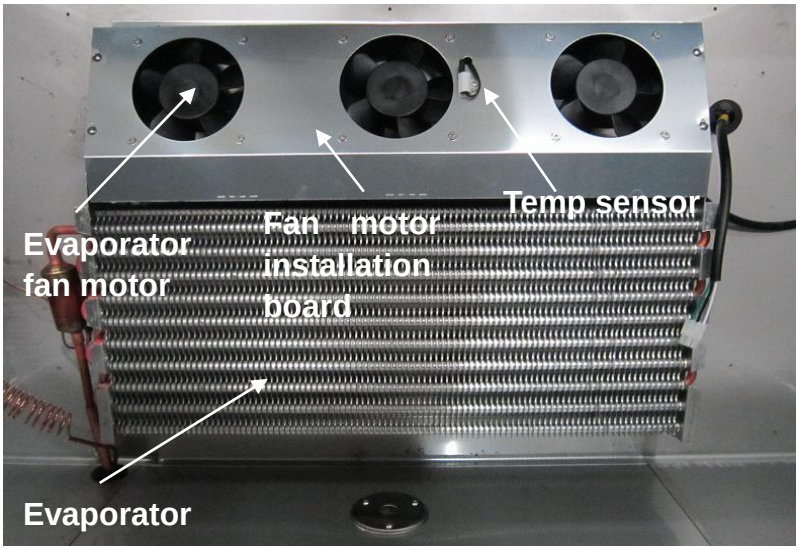


## 3.5 Refrigeration system

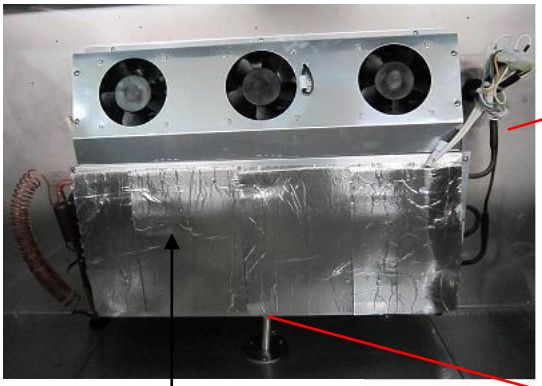
**Compressor component**

## 3.6 Cooling system



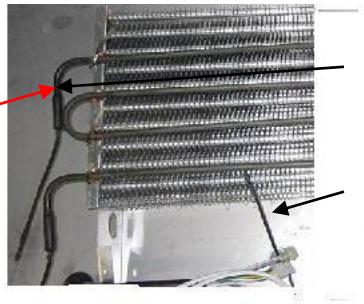



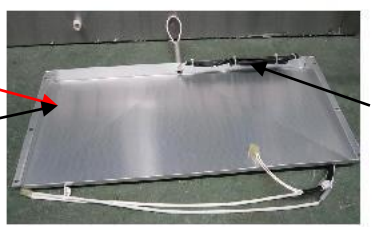

**Freezer only: defrost heater, inner drain pan heater, drain hose heater, defrost sensor**



Drain pan heater and heater insulator

Inner drain pan



# 5. CONTROLLER INSTRUCTION

## 5.1 Refrigerator controller

**Digital controller model: PJEZ**

Dimensions (mm)

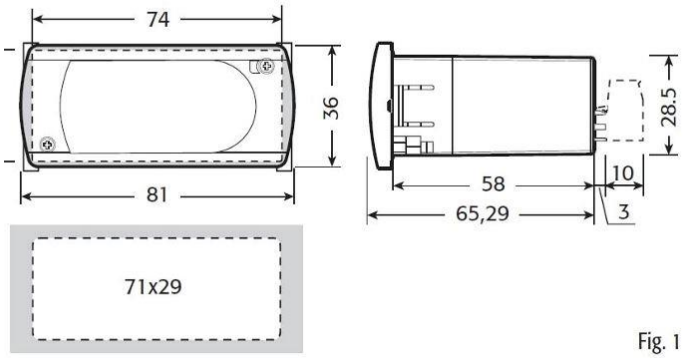



Fig. 1

**Display and functions**

During normal operation, the controller displays the value of the probe set using parameter/4(=1 ambient probe, default, = 2 second probe, = 3 third probe).In addition, the display has LEDs that indicate the activation of the control functions (see Table 1),while the 3 buttons can be used to activate/deactivate some of the functions (see Table 2).

LEDs and associated functions

| icon | function | normal operation | | | start up |
|---|---|---|---|---|---|
| | | ON | OFF | blink | |
| | compressor | on | off | request | ON |
| | fan | on | off | request | ON |
| | defrost | on | off | request | ON |
| AUX | aux | output on | output off | - | ON |
| | alarm | all | no alarm | - | ON |
| | clock | RTC fitted and enabled, at least 1 time band set | RTC not fitted or disabled, not even 1 time band set | - | ON if RTC fitted |

Tab. 1

Table of functions activated by the buttons - models S, X, Y, C

| button | | normal operation | | start up | |
|---|---|---|---|---|---|
| | | pressing the button alone | pressed together | | |
| | up ON/OFF | more than 3 s: toggle ON/OFF | Pressed together start/stop continuous cycle | - | |
| | down defrost | more than 3 s: start/stop defrost | | Pressed together start parameter reset procedure | for 1 s display firmware vers. code |
| set mute | set mute | - 1 s.: display/set the set point<br>- more than 3 s: access parameter setting menu (enter password '22')<br>- mute audible alarm (buzzer) | - | | for 1 s RESET current EZY set |

Tab. 2

**Setting the set point (desired temperature)**

1. press **SET** for 1 second, the set value will start flashing after a few moments;
2. increase or decrease the value using **UP** or **DOWN**;
3. press **SET** to confirm the new value.

**Switching the device ON/OFF**

Press **UP** for more than 3 seconds. The control and defrost algorithms are now disabled and the Instrument displays the message “OFF” alternating with the temperature read by the set probe.

**Manual defrost**

Press for **DOWN** more than 3 seconds (the defrost starts only if the temperature conditions are valid).

**Continuous cycle**

Press **UP** and **DOWN** together for more than 3 seconds.

**Access and setting type F (frequent) and type C (configuration) parameters**

1. Press **SET** for 3 seconds (the display will show ”PS”);
2.To access the type F and C parameter menu, press **SET**, enter the password “22” using **UP/DOWN**, press **SET** to confirm;

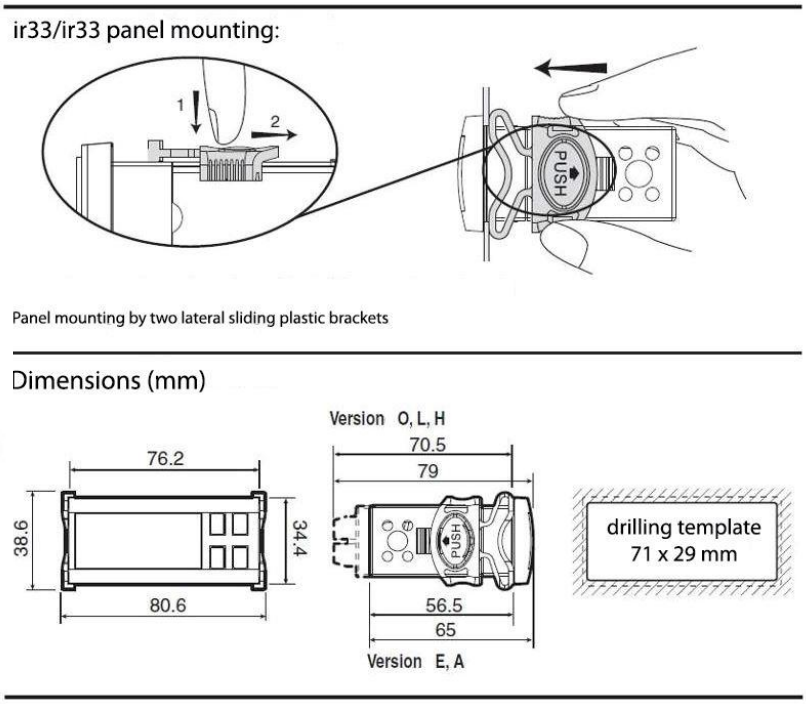
   To access the F parameter menu only, press **SET** (without entering the password);
3. Scroll inside the parameter menu using **UP/DOWN**;
4. To display/set the values of the parameter displayed, press **SET**, then **UP/DOWN** and finally **SET** to confirm the changes (returning to the parameter menu).

To save all the new values and exit the parameter menu, press **SET** for 3 seconds;

To exit the menu without saving the changed values (exit by timeout) do not press any button for at least 60 seconds.

## 5.2 Freezer controller

**Digital controller model: IR33**




**Signals on the display**

The blinking status indicates a request for activation that cannot be implemented until the end of the corresponding delay times.

| Icon | Function | ON | OFF | blink | Startup |
|---|---|---|---|---|---|
| | COMPRESS. | compressor ON | comp. OFF | compressor request | |
| | FAN | fan ON | fan OFF | fan request | |
| | DEFROST | defrost in progress | defrost not required | defrost request | |
| AUX | AUX | auxiliary output AUX active | auxiliary output AUX not active | anti-sweat heater function active | |
| | ALARM | delayed external alarm (before the expiry of the time 'A7') | no alarm present | alarms in normal operation (eg. high/low temp.) or alarm from ext. digital input immediate or delayed | |
| | CLOCK | at least one timed defrost has been set | no timed defrost is present | clock alarm | ON if Real-Time Clock pre- |
| sent | | | | | |
| | LIGHT | auxiliary output LIGHT ACTIVE | auxiliary output LIGHT NOT ACTIVE | anti-sweat heater function active | |
| | SERVICE | | no malfunction | malfunction (eg. EEPROM error or probe fault) | |
| HACCP | HACCP | HACCP function | HACCP function enabled | HACCP alarm (HA and/or HF) not enabled | |
| | CONTINUOUS CYCLE | enabled | not enabled | request | |

**Setting the set point (desired temperature value)**
To display or change the set point, proceed as follow:
1. Press the "**Set**" button for more than 1 second to display the set point;
2. Increase or decrease the value of the set point, using the ' ▲ aux " and ' def ▼ " respectively, until reaching the desired value;
3. Press the "**Set**" button again to confirm the new value.

**Alarms with manual reset**
Alarms with manual reset can be reset by pressing the " Prg mute " and " ' ▲ aux " for more than 5 seconds.

**Manual defrost**
As well as the automatic defrost function, a manual defrost can be enabled, if the temperature conditions allow, by pressing the" def ▼ " button for more than 5 seconds.

**Continuous cycle**
Pressing the buttons " ▲ aux " and " def ▼ " simultaneously for more than 5 seconds enable the continuous cycle function.
During operation in continuous cycle, the compressor continues to operate for the time "cc" and it stops when reaches the "cc" time out or the minimum temperature envisaged (AL = minimum temperature alarm threshold).
Continuous cycle setting: "cc" parameter (continuous cycle duration):"cc"=0 never active;"c6" parameter (by passing the alarm after the continuous cycle):"cc" = 0 never active; it avoid or delays the low temperature alarm after the continuous cycle.

**Accessing the configuration parameter (type C)**
1. Pressing the " Prg mute " and "**Set"** buttons at the same time for more than 5 seconds, the display will show "00"(password prompt).
2. Press "**Set**"**,** use the " ▲ aux ' " or " def ▼ " buttons to display the number "22" (parameter access password).
3. Confirm by pressing "**Set**".
4. The display will show the first modifiable "C" parameter.

**Accessing the configuration parameter (type F)**
1. Hold the " Prg mute " button for more than 5 seconds (if there are active alarms, first mute the buzzer), the display will show the first modifiable "F" parameter.

**Modifying the parameters**
After having displayed the parameter, either type "C" or type "F", proceed as follows:
1. Use the " ▲ aux " or " def ▼ buttons to scroll the parameters until the parameter to be modified is reached. When scrolling the parameters, an icon is shown on the display that represents the category of the parameter.

2. Alternatively, press the“ Prg/mute “button to display a menu that can be used to quickly access the group of parameters to be modified.
3. Scrolling the menu using the “ ▲/aux “and “ def/▼ “buttons displays the codes of the various categories of parameters, accompanied by the corresponding icon on the display (if present).
4. Once having reached the desired category, press “**Set”** to go directly to the first parameter in the chosen category (if no parameter is visible, pressing the “**Set”** button will have no effect)
5. At this stage, modify the parameters or return to the “Category” menu, using the “Prg/mute “button.
6. Press ”**Set**” to display the value associated with the parameter.
7. Increase or decrease the value using the “ ▲/aux “ or “def/▼ “ buttons respectively.
8. Press “**Set**” to temporarily save the new value and return to the display of the parameter.
9. Repeat the operation from point 1 or point 2.
10. If the parameter has sub-parameters, press “**Set**” to display the first sub-parameter.
11. Press the “▲/aux “or ‘def/▼ “ button to display all the sub-parameters.
12. Press “**Set** “to display the associated value.
13. Increase or decrease the value using the “ ▲/aux “ or “def/▼ “button respectively.
14. Press “**Set**” to temporarily save the new value and return to the display of the sub-parameter code.
15. Press “Prg/mute “ to return to the display of the parent parameter.

**Saving the new values assigned to the parameter**

To permanently save the new values of the modified parameters, press the “Prg/mute “ button for more than 5 seconds, thus exiting the parameter setting procedure. All the modifications made to the parameters temporarily saved in the RAM can be canceled and “normal operation” is resumed by not pressing any buttons for 60 seconds. All the modifications made to the parameters that were temporarily saved will be lost.

# Correct Settings for CAREL Controllers (115V)

| MODE | PJEZ(REFRIG) | IR33(FREEZER) | DISPLAY |
|---|---|---|---|
| /5 | 1 | 1 | TEMPERATURE UNIT F/C |
| /c1 | 0 | 0 | CABINET OFFSET |
| /c2 | 0 | 0 | EVAP OFFSET |
| St | 33 | -7 | USER SET POINT |
| rd | 7 | 7 | DIFFERENTIAL |
| r1 | 33 | -10 | LOW LIMIT |
| r2 | 43 | 10 | HIGH LIMIT |
| c0 | 2 | 2 | COMPRESSOR DELAY |
| dI | 3 | 3 | DEFROST INTERVAL TIME |
| dt1 | 43 | 58 | DEFROST TERMINATION TEMP |
| dP1 | 20 | 20 | MAX DEFROST DURATION |
| F0 | N/A | 2 | FAN OPERATING FUNCTION |
| F1 | N/A | 41 | FAN STARTING TEMPERATURE |
| F2 | N/A | 1 | FAN STOPS WHEN COMPRESSOR STOPS |
| F3 | N/A | 1 | FAN MODE DURING DEFROSTING |

# 6. REPLACEMENT OF THE MAIN PARTS

## CAUTION!!!

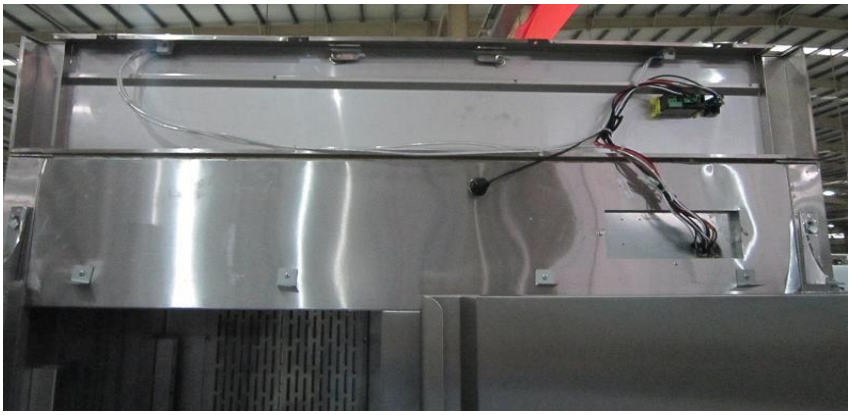
**Before beginning, make sure the device has been disconnected from the power socket (pull the power plug) and has been cooled down.**

### 6.1 Control panel components

-Control panel
-Thermostat
-Power switch
-Door switch
-Lock and key

A. Unscrew the screws located on the bottom of the control panel

B. Turn up the control panel and place that on the top of the cabinet. You can replace the controller, power switch, lock, door switch here.



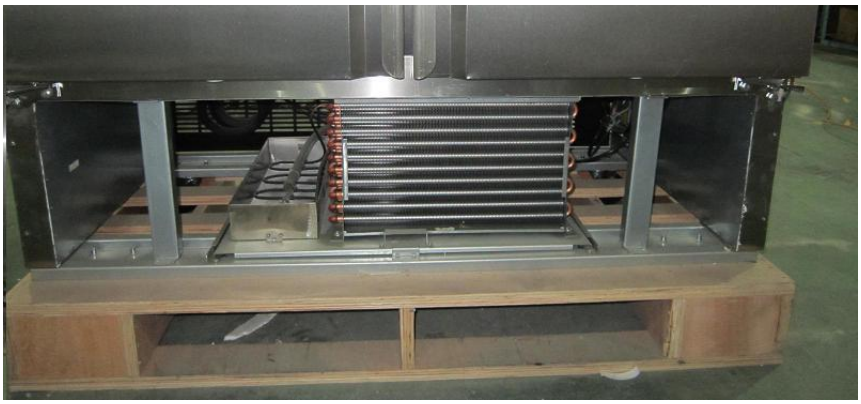
C. You can also unscrew the screws located on the top of the control panel. Remove the control panel from the cabinet to replace the parts: controller, power switch, lock, door switch and the control panel.

**CAUTION!!!** When screwing in the screw, please hold the control panel to prevent it from falling off and scratching the cabinet.

D. To reassemble, reverse the order of the instructions.

## 6.2 Door and hinge

A. Disassemble control panel as described above
B. Unscrew the screws located on each side of the front grill and remove the front grill



C. Unscrew the upper hinge. Unscrew the last screw while holding onto the door. You can replace the upper hinge and spring hinge here.

D. Unscrew the lower hinge

**CAUTION!!!** The door should be lifted by another person when unscrewing the lower hinge to avoid accident.

E. Take off the door and you can replace the upper/lower/spring hinge and door here.

Upper hinge

Lower hinge

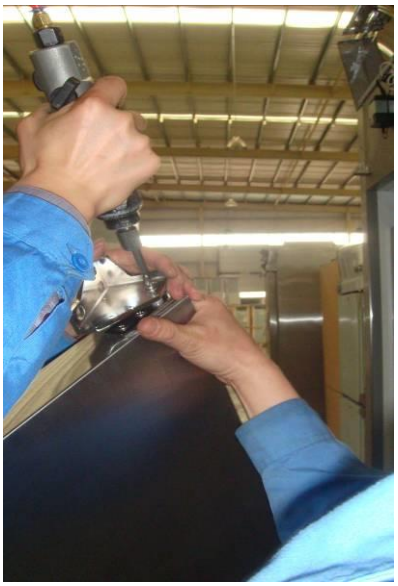
Spring hinge

F. To reassemble the door, reverse the order of instructions. Assemble the lower hinge while lifting the door, and then assemble the upper hinge.
G. If you want to replace the door gasket. Take off the gasket and assemble a new one by using a soft hammer to ensure proper alignment in the channel. Clean the gasket with a damp, soft cloth and then dry with a clean cloth.

◆ **Reversible door, CFD1 Model only.**

A. Disassemble the control panel, front grill, hinges and door as described above.

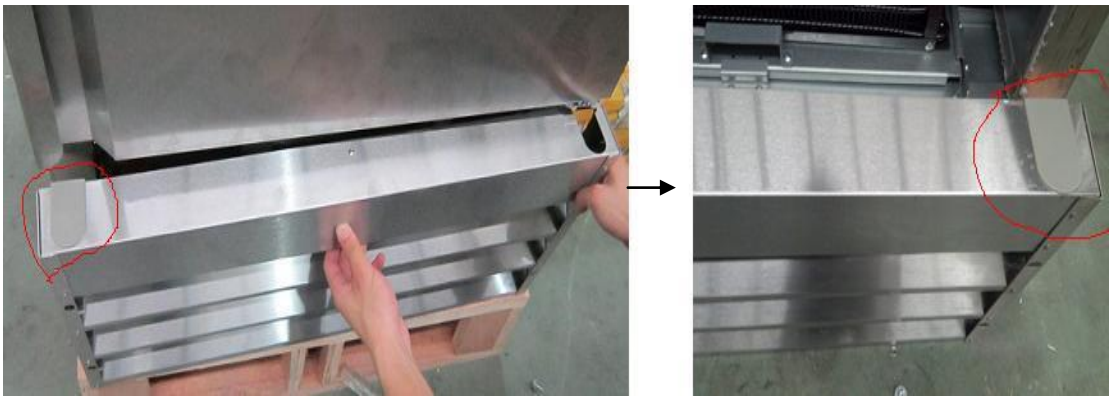
B. Rotate the door 180 degrees, attach the upper and lower hinge to the door. For example: The door was assembled with an upper right hinge and lower right hinge, after removing the hinge and rotating 180 degrees, the door should be assembled with an upper left hinge and lower left hinge.



C. Mount the door onto the cabinet

D. Take the top cover for the reversible door from the left side of the control panel to the right side.

Take the bottom cover for the reversible door from the left side of the front grill to the right side.



E, Assemble the control panel and the front grill. The left-hinged model is now a right-hinged.

Left Hinged

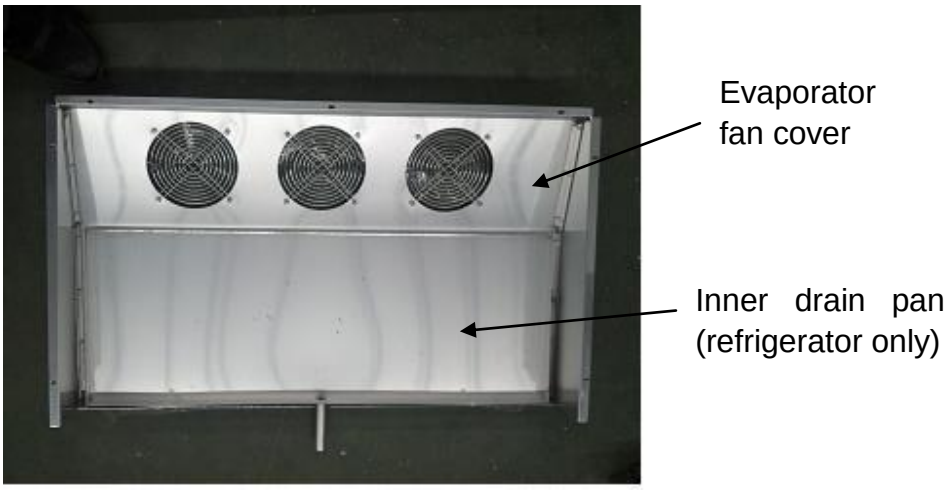
Right Hinged

## 6.3 Cooling system

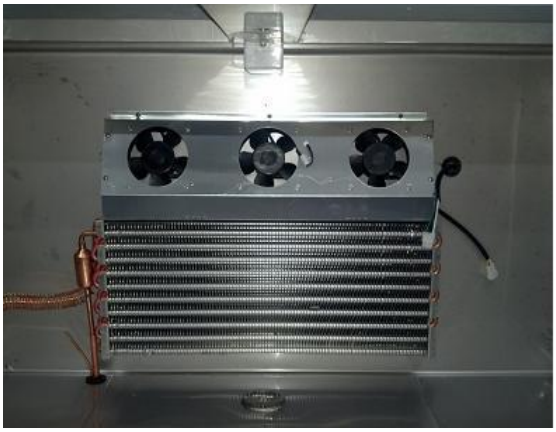
-Evaporator/evaporator cover/Temperature sensor
-Evaporator fan motor/fan motor cover
-Inner drain pan
-Defrost heater/drain pan heater/drain hose heater/defrost sensor (**freezer only**)

A. To replace the evaporator fan motor cover, unscrew the screws and replace with a new cover.

B. Unscrew the screws located on each side of the evaporator fan cover (left, right and front).You can replace the evaporator fan cover and inner drain pan here.



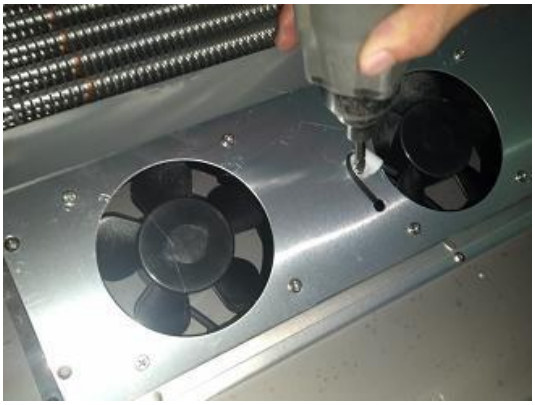
C. The evaporator components are as pictured.



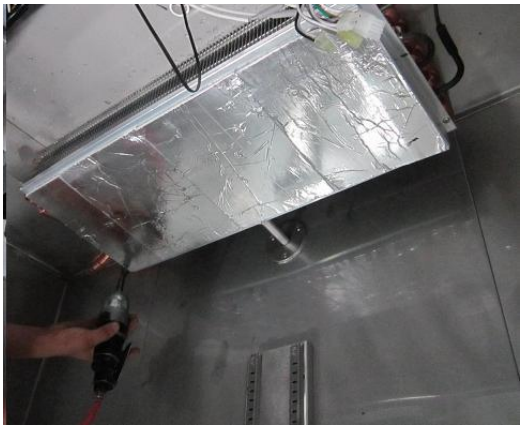
**Refrigerator**

**Freezer**

D. Unscrew the screws located on the fan motor installation board and temperature sensor mount. You can replace fan motor and temperature senor here.

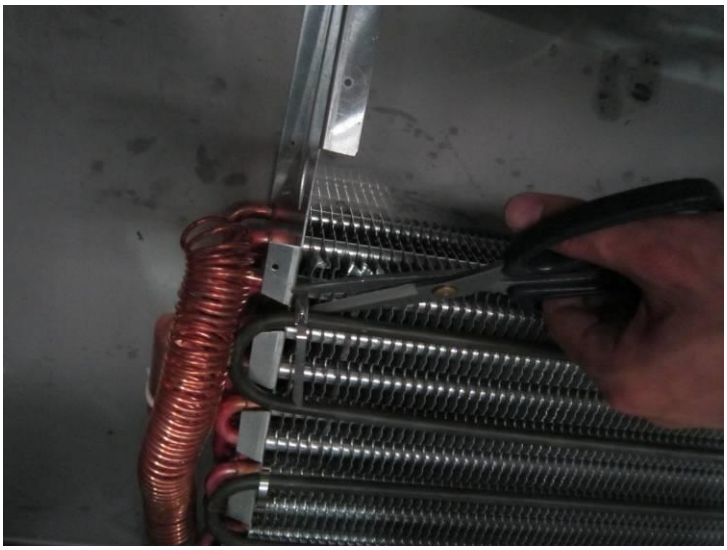


E. Unscrew the screws located on each side of the inner drain pan. Disconnect the cable connectors. You can replace inner drain pan, drain pan heater and drain hose heater here. (**Freezer model only**)



F. Here is the evaporator unit after removing the fan motor and inner drain pan. (**Freezer model only**)

G. Snip the pins used to mount the defrost heater. Disconnect the cable connector. You can replace the defrost heater now. Also use the pins to mount the defrost heater when installing the new one. (**Freezer model only**)



H. Remove evaporator fan motor and fan motor installation board. Unscrew the screws located on each side of the evaporator. You can replace the evaporator here.

I. To reassemble the evaporator component, complete steps in reverse order.

L. If you want to replace the temperature sensor and defrost sensor, the control panel must also be disassembled.

## 6.4 Refrigeration system

-Compressor/compressor components
-Condenser/condenser fan motor/blade/cover
-Outer drain pan
-Filter

A. Unscrew the screws located on both side of the front grill and remove that.

B. Unscrew the screw used to mount the compressor unit installation board.

C. Pull-out the compressor component, you can replace and clean the parts here.

***WARNING! Danger of burns!***
***The compressor's surface may be very hot during normal use. Never touch it with bare hands.***

## 6.5 Others

-Lamp component
-Power cord/back grill/AC contactor
-Shelf and shelf rail component

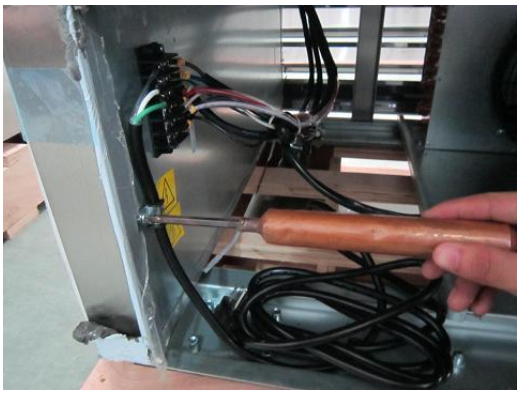
**1. Lamp component**

Unscrew the screws used to mount the lamp component and install a new one.

**2. Power cord & back grill & AC contactor**

A. Unscrew the screws located on each side of the back grill.

B. Remove the back grill. Unscrew the screws used to mount the power cord connector. You can install a new power cord here.



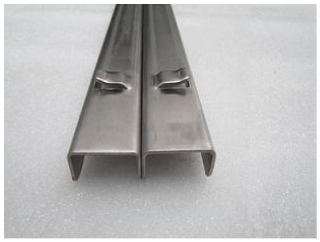
C. Unscrew the screw used to mount the AC contactor (Model **CFD-3FF ONLY**)

**CAUTION!!! Please make sure the device is unplugged when you replace the power cord and AC contactor.**

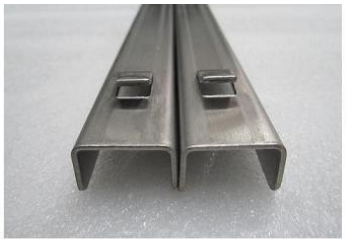
**3. Shelf & shelf rail component.**

A. Pull the shelf out, you can replace or clean the shelf here or put a full-sized food pan on the rails.

B. Replace and clean the shelf rail. Pull upward and outside the shelf rail.



Front side of the rail



Rear side of the rail

**One Pair**

C. Lift up on the front bracket (channel), you can replace and clean it here.

D. Unscrew the screws used to mount the back component.

E. Assemble the bracket (channel) by lining up the screw with the mounting bracket and pushing down on the bracket (channel) until secure.

F. Install the shelf rail by lining up the clips on the rail with the holes on the bracket and pushing down.

I. Clean the shelf with an appropriate disinfecting agent.

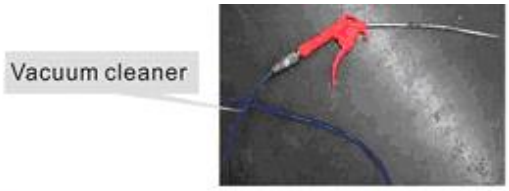
# 7. CLEANING AND MAINTENANCE

## 7.1 Cleaning

**CAUTION!!!** Before cleaning the cabinet, ensure it is disconnected from the main power supply.

A. Clean exterior and interior of the device with a damp and soft cloth. Dry and polish the device with a soft and dry cloth after cleaning.

B. Use a vacuum cleaner and soft brush to carefully clean the surface of the condenser unit.



① Use soft brush to sweep

② Use vacuum cleaner

**Tips for cleaning**

1. Clean the unit regularly.
2. Never use harsh cleaning substances such as scouring powder or cleaners containing alcohol or solvents that could damage the device's surface.
3. To prevent cooling problems, clean the condenser regularly.
4. Never use a stiff brush to clean the unit.
5. Do not pressure wash the unit.

## 7.2 Maintenance

1. Clean the exterior and interior of the unit and condenser unit monthly.
2. Check the main power cable for damage regularly. Never operate the device if the cable is damaged. A damaged cable must immediately be replaced by customer service or a qualified electrician.
3. In case of damage or malfunction, please contact our customer service center at 1-800-678-5517.
4. If the unit is not going to be used for a long period time, unplug the unit and remove the food. Clean and dry the unit thoroughly.
5. Only a qualified technician using OEM replacement parts and accessories should carry out repairs and maintenance of the unit. Do not attempt to repair the unit yourself.